

IN THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (currently amended) A fuel cell hybrid vehicle utilizing at least one flooded aqueous battery ~~or batteries~~ operatively coupled to a fuel cell stack, an electric drive motor, and an integrated watering system, said integrated watering system comprising:

a heat exchanger configured to extract water from exhaust air from said fuel cell stack;

a reservoir operatively connected to store said water;

[[a]] an electrolyte sensor operatively connected to generate [[a]] an electrolyte level signal based on said at least one flooded aqueous ~~batteries'~~ battery's electrolyte level;

a pump operatively connected to said reservoir and said at least one flooded aqueous battery ~~or batteries~~; and

moisture sensors, operatively connected to generate moisture level signals based on moisture levels for hydrogen gas and air input lines into said fuel cell;

at least one humidifier, operatively connected to said reservoir and said hydrogen gas and air input lines; and

a ~~system~~ controller operatively connected to receive and evaluate said electrolyte level signal from said electrolyte sensor and said moisture sensors to receive and evaluate said moisture level signals, to actuate

said pump to move water from said reservoir to said at least one flooded aqueous battery ~~or batteries~~ and to actuate said at least one humidifier.

2. (currently amended) The fuel cell hybrid vehicle and integrated watering system of claim 1, said integrated watering system further comprising:

a deionizer, operatively connected between said reservoir and said at least one flooded aqueous ~~batteries~~ battery.

3. (currently amended) The fuel cell hybrid vehicle and integrated watering system of claim 1, ~~said integrated watering system further comprising:~~

~~moisture sensors, operatively connected to generate signals based on moisture levels for hydrogen gas and air input lines into said fuel cell; humidifiers, operatively connected to said reservoir and said hydrogen gas and air input lines; and~~

wherein said controller comprises a system controller for receiving and evaluating said electrolyte level signal and actuating said pump, and

a second controller, operatively connected to receive and evaluate said moisture level signals from said moisture sensors and actuate said humidifiers.

4. (canceled).

5. (currently amended) The fuel cell hybrid vehicle and integrated watering system of claim 1, where said at least one flooded aqueous battery ~~or batteries~~ are ~~is~~ of a type

chosen from the group consisting of: nickel metal hydride, nickel iron, nickel cadmium, and lead acid.

6. (currently amended) The fuel cell hybrid vehicle and integrated watering system of claim 1, said integrated watering system further comprising:

an overflow reservoir operatively connected to said at least one aqueous battery ~~or batteries~~.

7. (currently amended) A fuel cell hybrid vehicle utilizing at least one flooded aqueous battery ~~or batteries~~ operatively coupled to a fuel cell stack, an electric drive motor, and an integrated watering system, said integrated watering system comprising:

a heat exchanger configured to extract water from exhaust air from said fuel cell stack;

a reservoir operatively connected to store said water;

a pump operatively connected to said reservoir and said at least one flooded aqueous battery ~~or batteries~~;

a system controller operatively connected to said pump to periodically control pumping of pump water from said reservoir via said pump to said at least one flooded aqueous battery ~~or batteries~~;

an overflow reservoir operatively connected to receive overflow from said at least one flooded aqueous battery ~~or batteries~~; and

a sensor on said overflow reservoir operatively connected to detect a change in fluid level in said overflow reservoir.

8. (currently amended) The fuel cell hybrid vehicle and integrated watering system of claim 7, said integrated watering system further comprising:

a deionizer, operatively connected between said reservoir and said at least one flooded aqueous battery ~~or batteries~~.

9. (original) The fuel cell hybrid vehicle and integrated watering system of claim 7, said integrated watering system further comprising:

moisture sensors, operatively connected to generate signals based on moisture levels for hydrogen gas and air input lines into said fuel cell;

humidifiers, operatively connected to said reservoir and said hydrogen gas and air input lines; and

a second controller, operatively connected to receive and evaluate said signals from said moisture sensors and actuate said humidifiers.

10. (currently amended) The fuel cell hybrid vehicle and integrated watering system of claim ~~[[8]]~~ 9, ~~where~~ wherein said system controller and said second controller are integrated.

11. (currently amended) The fuel cell hybrid vehicle and integrated watering system of claim 7, ~~where~~ wherein said at least one flooded aqueous battery ~~or batteries are~~ is of a type chosen from the group consisting of: nickel metal hydride, nickel iron, nickel cadmium, and lead acid.

12. (new) A fuel cell hybrid vehicle utilizing at least one flooded aqueous battery operatively coupled to a fuel cell stack, an electric drive motor, and an integrated watering system, said integrated watering system comprising:

- a heat exchanger configured to extract water from exhaust air from said fuel cell stack;

- a reservoir operatively connected to store said water;

- an electrolyte sensor operatively connected to generate an electrolyte signal based on said at least one flooded aqueous battery's electrolyte level;

- a pump operatively connected to said reservoir and said at least one flooded aqueous battery;

- a system controller operatively connected to receive and evaluate said electrolyte signal from said electrolyte sensor and to actuate said pump to move water from said reservoir to said at least one flooded aqueous battery;

- moisture sensors, operatively connected to generate moisture level signals based on moisture levels for hydrogen gas and air input lines into said fuel cell;

- humidifiers, operatively connected to said reservoir and said hydrogen gas and air input lines; and

- a second controller, operatively connected to receive and evaluate said moisture level signals from said moisture sensors and actuate said humidifiers.

13. (new) The fuel cell hybrid vehicle and integrated watering system of claim 12, where said system controller and said second controller are integrated.

14. (new) A fuel cell hybrid vehicle utilizing at least one flooded aqueous battery operatively coupled to a fuel cell stack, an electric drive motor, and an integrated watering system, said integrated watering system comprising:

- a heat exchanger configured to extract water from exhaust air from said fuel cell stack;

- a reservoir operatively connected to store said water;

- a pump operatively connected to said reservoir and said at least one flooded aqueous battery;

- a system controller operatively connected to said pump to periodically control pumping of water from said reservoir via said pump to said at least one flooded aqueous battery;

- a sensor on said overflow reservoir operatively connected to detect a change in fluid level in said overflow reservoir;

- moisture sensors, operatively connected to generate signals based on moisture levels for hydrogen gas and air input lines into said fuel cell;

- humidifiers, operatively connected to said reservoir and said hydrogen gas and air input lines; and

- a second controller, operatively connected to receive and evaluate said signals from said moisture sensors and actuate said humidifiers.

15. (new) The fuel cell hybrid vehicle and integrated watering system of claim 14 wherein said system controller and said second controller are integrated.